PATENT ABSTRACTS OF JAPAN

(11)Publication number : 11-296540

(43)Date of publication of application : 29.10.1999

(51)Int.Cl. G06F 17/30
G06F 13/00

(21)Application number : 10-101211

(22)Date of filing : 13.04.1998

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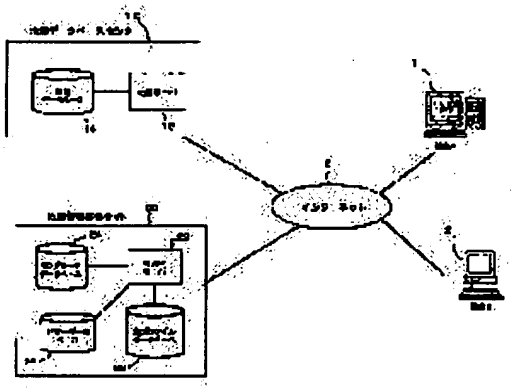
(54) MAP INFORMATION PROVIDING SYSTEM AND ITS METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To display advertizing information, which attracts user's interest and is expected to be effective for advertizing, with map information by specifying advertizing information corresponding to positional information by referring to map information corresponding to positional information designated by the user and an advertizing information data base.



SOLUTION: When the user designates and inputs a destination desired to display, information on this destination is sent to a WWW server 22 from a terminal 1 through the internet 5. The server 22 receives information on this destination and refers to a land mark data base 24 to obtain positional information corresponding to the destination. In addition, based on obtained positional information, a local area file corresponding to positional information is specified by referring to a local file data base 28. Next, banner advertizing corresponding to this local area file is specified by referring to a banner data base 26. Then, an HTML text including positional information and banner advertizing designated information showing advertizing is prepared to transmit to the terminal 1.

LEGAL STATUS

[Date of request for examination]	28.07.2000
[Date of sending the examiner's decision of rejection]	
[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]	
[Date of final disposal for application]	
[Patent number]	3512630
[Date of registration]	16.01.2004
[Number of appeal against examiner's decision of rejection]	
[Date of requesting appeal against examiner's decision of rejection]	
[Date of extinction of right]	

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CLAIMS

[Claim(s)]
[Claim 1] In the map system to offer information which provides a terminal with the map information accumulated in the map database through a network The advertising information database which memorizes correspondence with the positional information for specifying the area on geography, and the advertising information which has the area concerned and relation, A map information transmitting means to acquire the map information corresponding to the positional information specified by a user from said map database, and to transmit to said terminal, A map system to offer information equipped with an advertising information transmitting means to specify the advertising information corresponding to said positional information, and to transmit to said terminal with reference to said advertising information database.
[Claim 2] Said advertising information database is a map system to offer information according to claim 1 characterized by having the local database which remembered correspondence relation with said positional information to be the local file which shows the area on said geography.
[Claim 3] It is the map system to offer information according to claim 2 which said local file was classified into two or more hierarchies according to the corresponding size of an area, and has memorized the advertising information to which said advertising information database corresponds for every area file belonging to said two or more hierarchies.
[Claim 4] Said advertising information transmitting means is a map system to offer information according to claim 1 to 3 which transmits the information which directs to display said advertising information on the same screen as said map information on said terminal to said terminal.
[Claim 5] The advertising information memorized by said advertising information database is a map system to offer information according to claim 1 to 4 characterized by being either of the advertising information relevant to the advertising information relevant to the industry of said area and the store which exists in said area, and a facility.
[Claim 6] In the approach of offering map information to a terminal through a network from a map system to offer information equipped with the advertising information database which memorizes the map database and advertising information which accumulated map information The process which specifies the positional information of a desired location in said terminal, and the process which acquires the map information corresponding to the positional information specified by a user from said map database, and is transmitted to said terminal, An approach equipped with the process which specifies the advertising information which has the area and relation corresponding to said positional information with reference to said advertising information database, and is transmitted to said terminal, and the process which receives said map information and said advertising information, and is displayed on said terminal.
[Claim 7] Said display process is the approach according to claim 6 of displaying said map information and said advertising information on the same screen.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the technique of offering the map information and advertising information which are accumulated in the database using the Internet.
[0002]
[Description of the Prior Art] Now, on the Internet which used Internet Protocol, various information is offered by the WWW (World Wide Web) server from all over the world, and a user can operate the terminal connected to the Internet and can acquire the information on desired by searching.
[0003] Although the data utility offered through such the Internet exists variously, there is map information retrieval display service as one of them. This is the service which can acquire the map information on desired and can be displayed on a terminal by having a map database and accessing the WWW server connected to the Internet. If a user inputs the address, the name of a place, a name of the station or various facility names, a store name, etc. from a terminal, specifically, the location and the map of the circumference of it will be displayed on a terminal as image information. Therefore, a user can recognize easily where the target station, a facility, etc. are with reference to the displayed map information.
[0004] On the other hand, the advertising information (it is hereafter called "banner advertising".) generally called a "banner" may be displayed on the homepage of not only a map information search service but the various WWW servers connected on the Internet, and other screens. To the company and individual who manage a WWW server, a customer (advertiser) pays ad rates, this displays an advertisement on the homepage, and an advertisement is displayed on the part of the arbitration on a screen. Such banner advertising is performed also in above-mentioned map information retrieval display service, for example, banner advertising is displayed near the map information in a display screen.
[0005] An example of the gestalt of the banner-advertising display performed in map information retrieval display service is as follows. An advertising display is prepared all over a screen including the map information displayed on a user terminal, and a certain banner advertising is displayed. If a user shows an interest to the advertisement and clicks an advertising display, URL (Uniform Resource Locator) of the homepage about the advertising contents concerned accumulated in the WWW server of map information retrieval display service or the WWW server about an advertising display will be specified, and the homepage which shows the detail of the banner advertising will be displayed on a terminal.
[0006]
[Problem(s) to be Solved by the Invention] However, it is unrelated to the map information on which the user displayed the contents of banner advertising by retrieval of arbitration in this case. Therefore, unless a user shows interest to the advertisement, clicks an advertising display and displays the homepage of the banner advertising positively himself, an advertisement effect of advertising is seldom expectable. That is, if it has the map information or the area where the banner advertising was displayed, and relation when displaying banner advertising on a display screen including map information, the

value of seeing the advertisement also for a user will increase, but a user's interest will become low if unrelated.

[0007] This invention is made in view of the above point, and the technical problem tends to draw a user's interest with map information, and is to offer the system which enables presenting of the advertising information which can expect a high propaganda effect.

[0008]

[Means for Solving the Problem] In order to solve the above-mentioned technical problem, invention according to claim 1 In the map system to offer information which provides a terminal with the map information accumulated in the map database through a network The advertising information database which memorizes correspondence with the positional information for specifying the area on geography, and the advertising information which has the area concerned and relation, A map information transmitting means to acquire the map information corresponding to the positional information specified by a user from said map database, and to transmit to said terminal, With reference to said advertising information database, the advertising information corresponding to said positional information is specified, and it constitutes so that it may have an advertising information transmitting means to transmit to said terminal.

[0009] According to the map system to offer information constituted as mentioned above, correspondence with the positional information for specifying the area on geography and the advertising information which has the area concerned and relation is memorized by the advertising information database. If a user specifies the positional information of a desired location from a terminal, a map information transmitting means will acquire the map information corresponding to the positional information specified by a user from said map database, and will transmit it to said terminal. Moreover, with reference to said advertising information database, an advertising information transmitting means specifies the advertising information corresponding to said positional information, and transmits it to said terminal. A terminal displays the map information and advertising information which were transmitted.

[0010] Therefore, if a user displays the map information on desired on a terminal using the map system to offer information concerned, the advertising information relevant to the displayed area will be displayed automatically. Therefore, a user can offer the advertisement relevant to an interested area, and it can be expected that a propaganda effect will increase.

[0011] In a map system to offer information according to claim 1, invention according to claim 2 constitutes said advertising information database so that it may have the local database which remembered correspondence relation with said positional information to be the local file which shows the area on said geography. Therefore, the data storage configuration in a database is simplified and access is quickened.

[0012] Said local file was classified into two or more hierarchies according to the size of the area where invention according to claim 3 corresponds in a map system to offer information according to claim 2, and said advertising information database has memorized the advertising information which corresponds for every area file belonging to said two or more hierarchies. Therefore, suitable advertising information can be offered according to the size of the area which the user chose.

[0013] In a map system to offer information according to claim 1 to 3, invention according to claim 4 constitutes said advertising information transmitting means so that the information which directs to display said advertising information on the same screen as said map information on said terminal may be transmitted to said terminal. Therefore, a user can see the advertising information relevant to the map information and coincidence which were searched on the same screen.

[0014] In a map system to offer information according to claim 1 to 4, invention according to claim 5 constitutes the advertising information memorized by said advertising information database so that it may be either of the advertising information relevant to the advertising information relevant to the industry of said area and the store which exists in said area, and a facility. Therefore, an effective advertisement advertisement can be performed for every every place region.

[0015] In the approach of offering map information to a terminal through a network from a map system

to offer information equipped with the advertising information database which memorizes the map database and advertising information that invention according to claim 6 accumulated map information The process which specifies the positional information of a desired location in said terminal, and the process which acquires the map information corresponding to the positional information specified by a user from said map database, and is transmitted to said terminal, With reference to said advertising information database, the advertising information which has relation is specified as the area corresponding to said positional information, and it constitutes so that it may have the process transmitted to said terminal, and the process which receives said map information and said advertising information, and is displayed on said terminal.

[0016] According to the approach constituted as mentioned above, if a user specifies the positional information of a desired location in a terminal, the map information corresponding to the positional information specified by a user will be acquired from said map database, and it will be transmitted to said terminal. Next, the advertising information which has the area and relation corresponding to said positional information with reference to said advertising information database is specified, and it is transmitted to said terminal. And a terminal receives and displays said map information and said advertising information.

[0017] Therefore, if a user displays the map information on desired on a terminal using the map system to offer information concerned, the advertising information relevant to the displayed area will be displayed automatically. Therefore, a user can offer the advertisement relevant to an interested area, and it can be expected that a propaganda effect will increase.

[0018] Said display process is constituted so that invention according to claim 7 may display said map information and said advertising information on the same screen in an approach according to claim 6. Therefore, it can follow and a user can see the advertising information relevant to the map information and coincidence which were searched on the same screen.

[0019]

[Embodiment of the Invention] In case this invention displays banner advertising with the map information acquired by map communications service, it is characterized by displaying automatically banner advertising relevant to the area of the map information currently then displayed. Since the area which the user specified himself and displayed in map communications service is an area in which the user is interested, if banner advertising which has relation is displayed on the area, a high propaganda effect is expectable. Hereafter, the gestalt of suitable operation of this invention is explained with reference to a drawing.

[0020] [1] The rough configuration of the map system to offer information applied to the operation gestalt of this invention at system configuration drawing 1 is shown. In drawing 1 , the map database center 10 and the map information offer site 20 are connected to the Internet 5. Furthermore, the user terminal 1 is connected to the Internet 5.

[0021] A user terminal 1 can receive service of WWW by using the application program called a WWW browser. In the example of drawing 1 , a user terminal 1 is connected to the map information offer site 20 using a WWW browser, and it becomes possible by perusing the homepage to receive offer service of map information.

[0022] The map database center 10 is a center for carrying out map communications service on the Internet, and is equipped with the map server 12 and the map database 14. The map database 14 contains the image data of the information on the positional information on a map (coordinate information), for example, the LAT, and LONG, and the map information corresponding to the positional information. The image data of map information is constituted by two or more layered structures according to the scale. That is, like drawing in whole Japan, and drawing of all-prefectures level, the image data of two or more scales is prepared, and the local file name which is alike, respectively and specifies the image data is attached. Scale information and a local file are matched.

[0023] The map server 12 searches and acquires the image data (namely, local file) of map information which corresponds according to the assignment from a user terminal, directions, etc. from the map database 14, and transmits to a user terminal 1 through the Internet 5. Moreover, the map server 12 also

performs retrieval of map information, and transmission according to the demand from the WWW server 22.

[0024] The map information offer site 20 is a WWW site. WWW is a broader-based information system on the Internet which offers multimedia information, such as text, image information, and speech information, using a hypertext. A WWW server is a server on the Internet linked by WWW, and calls a WWW site the site which gives its service by WWW. The map information offer site 20 is equipped with the WWW server 22, the landmark database 24, the banner database 26, and the local file database 28.

[0025] The landmark database 24 has memorized the data to which correspondences with those positional information are indicated to be a certain specific address, a name of the station, and landmarks (a facility, an amusement center, an amusement park, store, etc.). Therefore, the WWW server 22 can specify the address corresponding to it, a name of the station, and a landmark from specific positional information by accessing the landmark database 24. Moreover, the positional information which corresponds from the specific address, a name of the station, a landmark name, etc. is also acquirable conversely.

[0026] The local file database 28 has memorized correspondence with an every place region file and positional information (coordinate information). Here, an "area" is the geographical partition of a specific location, and the local file is classified and set to two or more layered structures from a large partition to a subsection. The example of the hierarchical partition of a local file is shown in drawing 3 . In addition, the example of drawing 3 shows only the partition of the local file relevant to the circumference of the Kamata, Ota-ku, Tokyo station. In drawing 3 , "level" shows at least that on the hierarchy of an every place region file. In this example, level 1 is the top hierarchy and is the biggest partition. It corresponds to a small partition as it is set to level 2, level 3, and level 4. Although not shown in the example of drawing 3 , the local file belonging to level 1 has Kansai, a northeast, Hokuriku, etc. other than Kanto. Similarly, the local file of all-prefectures extent, such as Tokyo, Saitama, and Chiba, is included in level 2, and the local file of a division and cities, towns and villages extent is included in level 3. Level 4 is the finest partition and the local file of a city name and name-of-the-station extent is included. The above-mentioned map image data is prepared corresponding to this every place region file. That is, the map image of Kanto and Kansai is prepared corresponding to the local file "Kanto" of level 1, and "Kansai", and the image data of Ota-ku and Chiyoda-ku is prepared corresponding to the local file "Ota-ku" of level 3, and "Chiyoda-ku."

[0027] About the circumference of the Kamata, Ota-ku, Tokyo station illustrated here, the local file which corresponds in all the hierarchies from level 1 to level 4 is defined, and correspondence with the local file and positional information is memorized in the local file database 28. In addition, the local file of level 4 which corresponds depending on positional information may not exist. That is, although map information detailed about a station and the circumference of shopping quarter is prepared, generally in farmland and a forest, detailed map information is not prepared. therefore, the local (the case -- the level 3) file and its map image data of the corresponding level 4 may not exist in the positional information which shows such a location

[0028] The positional information (coordinate information) corresponding to the above-mentioned every place region file is memorized by the local file database 28. That is, the information of whenever [east longitude OO], thru/or whenever [OO] is memorized whenever [positional information / corresponding to an every place region file name /, for example, north latitude OO,], thru/or whenever [OO]. Therefore, if positional information is determined, the local file (namely, map image data) corresponding to the positional information can be specified by referring to the local file database 28. According to the example of drawing 3 R> 3, the local related file in each level can be specified by specifying the positional information near the Kamata station (north latitude, east longitude). In addition, as the approach of limitation of the positional information matched with an every place region file, a specific area can be specified by two or more polygonal LAT and LONG corresponding to top-most vertices, and this can be matched with a certain local file. Moreover, positional information can be specified by the approach of the area of radius OOkm centering on one certain point, and this can also be

matched with a certain local file.
[0029] The banner database 26 has memorized correspondence with an above-mentioned local file and the banner-advertising information (advertising information) corresponding to it. The example of the information in the banner database 26 is shown in drawing 4 . In addition, the information which also limited the example of drawing 4 around the Kamata station is shown. As shown in drawing 4 , an every place region file, the level of the local file, and correspondence of the banner-advertising information determined to the local file are memorized by the banner database 26. That is, an every place region file is chosen by the user, and the banner database 26 shows the banner-advertising information which should be displayed on coincidence, when corresponding map image data is displayed on a user terminal. Advertisement D is displayed when it was the example of drawing 4 , for example, Advertisement B is displayed on coincidence when a user displays the map information on Ota-ku (it corresponds to a local file "Ota-ku") on a user terminal by map communications service, and the map information on Kamata (it corresponds to a local file "Kamata") is displayed on a user terminal 1.
[0030] Banner advertising prepared corresponding to an every place region file is banner advertising which has the area and relation. Specifically, banner advertising relevant to a store, a facility, etc. which exist in banner advertising relevant to the industry of the area etc. and its area etc. is mentioned. As banner advertising relevant to the industry of an every place region etc., the specialty article of the area, the product by the major industry of the area, service, etc. are included, for example, banner advertising of a rahmen store etc. is mentioned to banner advertising of an apple, and a local file "Sapporo" to a local file "Aomori." Moreover, as banner advertising relevant to the store and facility which exist in the area, banner advertising, such as a restaurant in the area, a department store, recreation facilities, and a sport facility, is mentioned.
[0031] In this operation gestalt, banner advertising matched to an every place region file presupposes that it is one, and the local file name memorized in the banner database 26 and banner advertising decide to correspond to 1 to 1. If the positional information which has a user by carrying out like this is specified and a local corresponding file is specified, banner advertising displayed with the map information on the local file will be determined as one. Therefore, processing by the WWW server 22 can be simplified.
[0032] However, two or more advertisements corresponding to an every place region file are prepared, and it changes according to a time zone, and can display. For example, the correspondence in a database can be determined that banner advertising of the department store is displayed and, as for the business-hours band of a certain department store, the time zone after the operating termination will display the advertisement of another restaurant to a certain local file. Moreover, according to a season, a day of the week, etc., banner advertising corresponding to one local file can also be changed similarly. The offer company of the map communications service concerned determines matching with the local file in the banner database 26, and banner advertising according to a request of an advertiser. Moreover, when two or more advertising displays are prepared all over the screen displayed on a user terminal in map communications service, two or more banner advertising can be matched to an every place region, and two or more banner advertising can also be displayed on coincidence.
[0033] [2] Explain map information offer actuation, next map information offer actuation with reference to drawing 1 thru/or 6. Drawing 2 is a flow chart which shows offer actuation of map information, and drawing 5 **** drawing 6 is the example of the map display screen in each phase. Hereafter, the user of a user terminal 1 connects with a map information offer site, and it explains taking the case of the case where map information is acquired.
[0034] First, a user uses the WWW browser of a terminal 1 and specifies URL of a map information offer site (step S2). URL is address information which specifies the specific link place on WWW. This connects a terminal 1 to the WWW server 22 of the map information offer site 20 through the Internet 5.

[0035] Answering this, the WWW server 22 sends the HTML (Hypertext Markup Language) text of the homepage of a map information offer site to a terminal 1. A HTML text is the text file described in the language called HTML, and the information on preservation places, such as associated image

information and speech information, can be included. The WWW browser of a terminal 1 receives this HTML text, and displays it on a terminal 1 (step S4).

[0036] The example of the initial screen of the homepage concerned displayed on drawing 5 in this way is shown. In drawing 5 , there is a map display 30 in the center of a display screen, and map image data is displayed there. The banner-advertising display 40 is on the map display 30. In addition, in an initial screen, since assignment of the map information by the user is not performed, suppose that messages other than banner advertising by which a specific area and correlation are not made, or an advertisement etc. are displayed in the banner-advertising display 40.

[0037] The scale specification part 32 is immediately under the map display 30, and this shows the scale (scale) of the map currently displayed in the map display 30. Each carbon button in the scale specification part 32 (this example 11 steps) supports a different scale. In the example of drawing 5 , the display of a map is made by the largest (close to a left-hand side Japanese map mark) scale. If the conservative (close to "street") carbon button in the scale specification part 32 is clicked to expand the displayed map image, the small map image of a scale will be displayed.

[0038] The scrolling section 34 is displayed on the left-hand side of the scale specification part 32. The scrolling section 34 is used to display the periphery of the map by which it is indicated by current, and the arrow head turned in the eight directions centering on the current display position is displayed. For example, a user's click of the upward arrow head in the scrolling section 34 displays the map of the periphery of the location by which it is indicated by current located immediately north. That is, presenting of map information is changed so that the clicked location may take the lead in a display image.

[0039] On the bottom of the scale specification part 32, the input column 36 for specifying or inputting a location searching is displayed. The user as whom the carbon button of "an address list", "a station list", and "a landmark list" is displayed, and the candidate list of the address, a name of the station, and landmark names is displayed by clicking these can display the map image of the location on the left-hand side of the input column 36 by choosing a desired candidate out of them. Moreover, the input box of the address, a name of the station, and a landmark name is displayed on the right-hand side of the input column 36, and a user can do the direct input of the desired address, the name of the station, etc. using a keyboard. For example, if a user inputs the "Kamata station" in the name-of-the-station input box of the input column 36, as shown in drawing 6 R> 6, the map image centering on the Kamata station will be displayed in the map display 30. In addition, various special function carbon buttons are displayed on the right-hand side of the input column 36.

[0040] Where the homepage of a map information offer site is displayed like drawing 5 , a user specifies the destination which you want to display and inputs. This assignment may be performed by specifying a candidate from the list on the left-hand side of the input column 36, and may be performed in an input box by carrying out direct typing of a name of the station, the address, etc. In this way, the specified destination information is sent to the WWW server 22 through the Internet 5 from a terminal 1 (step S6). The scale information by which can come, simultaneously current selection is made is also sent to the WWW server 22.

[0041] The WWW server 22 acquires the positional information (coordinate information) corresponding to the destination concerned for this information with reference to reception and the landmark database 24. Moreover, based on the acquired positional information, the local file corresponding to the positional information concerned is specified with reference to the local file database 28. Next, with reference to the banner database 26, banner advertising corresponding to the local file concerned is specified.

[0042] If a user inputs the "Kamata station" into the input column 36 and retrieves the map information around the Kamata station now, the WWW server 22 acquires the positional information of the Kamata station, and specifies a local file "Kamata" with reference to the local file database 28 based on this. Here, when current positional information belongs to the local file of two or more level in the local file database 28, the advertisement corresponding to the lowest (the number of level is large) area of level is determined as banner advertising which should be displayed. In this example, it will correspond to all the local files of "Kanto", "Tokyo", "Ota-ku", and "Kamata" which the specified positional information

is the thing of the Kamata station, and are shown in drawing 3 . In this case, the WWW server 22 determines the lowest local file "Kamata" of level as a current area. When the specified positional information corresponds to two or more local files, banner advertising prepared about the smallest partition will have priority, and will be displayed by this processing. When a user specifies the Kamata station and retrieves map information, as banner information displayed on coincidence, the advertisement relevant to the Kamata station is more desirable than the advertisement about whole Ota-ku or whole Tokyo. Therefore, when positional information belongs to two or more areas, it constitutes so that the advertising information on the lowest area of level may be displayed preferentially.

[0043] On the other hand, although the positional information corresponds to the every place region file of "Kanto", "Tokyo", and "Ota-ku" when a user specifies other locations in Ota-ku (for example, residential street etc.), for example, a local corresponding file may not exist in level 4. In such a case, the WWW server 22 determines the advertisement C which specifies the local file corresponding to order from level low as mentioned above and which corresponds for the WWW server 22 to specify a local file "Ota-ku" with reference to the local file database 28 therefore, and refer to the banner database 26 further.

[0044] Moreover, when a user specifies it as "Ota-ku", "Tokyo", etc. using the input column, the local file of level which corresponds, respectively will be specified and the advertisement C related with it and Advertisement B will be displayed.

[0045] Now, if it returns to the example of the Kamata station, the WWW server 22 will determine the advertisement D corresponding to a local file "Kamata" with reference to the banner database 26 next. And the WWW server 22 creates a HTML text including the banner-advertising assignment information which shows the above-mentioned positional information and Advertisement D, and transmits to a terminal 1 (step S8). The banner-advertising assignment information which should be carried out call appearance from Server Name (namely, map server 12) which the terminal 1 which received it further should access, the local file name chosen according to the scale by which current selection is made, the sentence which should be displayed on a terminal 1, and the banner database 26 is included in this HTML text.

[0046] The WWW browser of a terminal 1 displays the sentence contained in reception and it in this HTML text. Moreover, information, such as a local file name, positional information, size information, and scale information, is sent to the map server 12 described in the HTML text concerned (step S10). The map server 12 accesses the map database 14, acquires the image data corresponding to the range determined using size information focusing on positional information among the image data of the local file specified by scale information and positional information, and transmits to a terminal 1 by making this into map image data (GIF data).

[0047] Moreover, the WWW browser of a terminal 1 accesses the banner database 26 at coincidence, acquires the banner-advertising image data corresponding to the banner-advertising assignment information described in the HTML text, and sends it to a user terminal (step S12).

[0048] A terminal 1 displays the map image data transmitted from the map server 12 on the display part specified in the HTML text to which it was previously transmitted from the WWW server 22. Moreover, the banner-advertising image data transmitted to coincidence from the banner database 26 is displayed in the banner-advertising display 40, as shown in drawing 6 (step S14). In this way, the map image data of the destination specified by a user is displayed in the map display 30 of a terminal 1, and banner advertising relevant to the area is displayed in the banner-advertising display 40.

[0049] In addition, when the destination is changed by the re-assignment to a user's input column 36, and reinput, based on the positional information after changing step S6 thru/or processing of S14 etc., renewal of a map and a banner-advertising display is performed repeatedly.

[0050] Moreover, where a map image is displayed, also when there are modification of a scale, modification of a display position, etc., processing transmits return, the positional information after modification, scale information, etc. to step S6 to the WWW server 22. Henceforth, the WWW server 22, the map server 12, and a terminal 1 perform same processing based on the information after modification, and make a change of a map and a banner-advertising display.

[0051] For example, when a user operates the scale specification part 32 and scale information is changed, the range of the map image data which the map file which the map server 12 should access is changed, or is transmitted to a terminal 1 among the same map files is changed. On the other hand, if a user clicks the location which is interested on the map displayed in the map display 30, the positional information of the location will be transmitted and the map server 12 will transmit the map image data centering on the location to a terminal 1. Consequently, the map in the map display 30 is changed into a display centering on the location which the user clicked.
[0052] Moreover, when positional information is changed in this way, the WWW server 22 judges whether modification of the positional information is accompanied by modification of a local file with reference to the local file database 28. When accompanied by modification of a local file, with reference to the banner database 26, the banner-advertising assignment information corresponding to the local file after modification is acquired. The rest transmits the banner-advertising assignment information after modification to a terminal 1 according to steps S12 and S14, acquires banner-advertising image data from the banner database 26, and displays it in the banner-advertising display 40.
[0053] In addition, in the above-mentioned explanation, although the map server 12 specified the map file directly by the file name, the map file of the map server 12 may be made to be built according to original administrative information. In that case, it replaces with specifying a map file name directly, and a map file is accessed using CGI (Common Gateway Interface) which achieves an interface with the program which moves on a WWW server and a server. For example, at step S10, the CGI name for a map display is sent to the map server 12.
[0054] As explained above, according to this invention, in addition to the map information on the location which the user specified himself and searched, in map communications service, the banner-advertising information relevant to the location is displayed. Therefore, a user can acquire automatically the advertising information which is related to a location with the present interest. Moreover, since an advertisement can be offered to the user who is more interested also as an advertiser, it is expectable that an advertisement effect of advertising increases.
[0055]
[Effect of the Invention] If a user displays the map information on desired on a terminal using the map system to offer information concerned according to invention given in claims 1 and 6 as explained above, the advertising information relevant to the displayed area will be displayed automatically. Therefore, a user can offer the advertisement relevant to an interested area, and it can be expected that a propaganda effect will increase.
[0056] According to invention according to claim 2, the data storage configuration in a database is simplified and access is quickened.
[0057] According to invention according to claim 3, suitable advertising information can be offered according to the size of the area which the user chose.
[0058] According to invention given in claims 4 and 7, a user can see the advertising information relevant to the map information and coincidence which were searched on the same screen.
[0059] According to invention according to claim 5, an effective advertisement advertisement can be performed for every every place region.

[Translation done.]

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TECHNICAL FIELD

[Field of the Invention] This invention relates to the technique of offering the map information and advertising information which are accumulated in the database using the Internet.

[Translation done.]

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PRIOR ART

[Description of the Prior Art] Now, on the Internet which used Internet Protocol, various information is offered by the WWW (World Wide Web) server from all over the world, and a user can operate the terminal connected to the Internet and can acquire the information on desired by searching.
[0003] Although the data utility offered through such the Internet exists variously, there is map information retrieval display service as one of them. This is the service which can acquire the map information on desired and can be displayed on a terminal by having a map database and accessing the WWW server connected to the Internet. If a user inputs the address, the name of a place, a name of the station or various facility names, a store name, etc. from a terminal, specifically, the location and the map of the circumference of it will be displayed on a terminal as image information. Therefore, a user can recognize easily where the target station, a facility, etc. are with reference to the displayed map information.
[0004] On the other hand, the advertising information (it is hereafter called "banner advertising".) generally called a "banner" may be displayed on the homepage of not only a map information search service but the various WWW servers connected on the Internet, and other screens. To the company and individual who manage a WWW server, a customer (advertiser) pays ad rates, this displays an advertisement on the homepage, and an advertisement is displayed on the part of the arbitration on a screen. Such banner advertising is performed also in above-mentioned map information retrieval display service, for example, banner advertising is displayed near the map information in a display screen.
[0005] An example of the gestalt of the banner-advertising display performed in map information retrieval display service is as follows. An advertising display is prepared all over a screen including the map information displayed on a user terminal, and a certain banner advertising is displayed. If a user shows an interest to the advertisement and clicks an advertising display, URL (Uniform Resource Locator) of the homepage about the advertising contents concerned accumulated in the WWW server of map information retrieval display service or the WWW server about an advertising display will be specified, and the homepage which shows the detail of the banner advertising will be displayed on a terminal.

[Translation done.]

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EFFECT OF THE INVENTION

[Effect of the Invention] If a user displays the map information on desired on a terminal using the map system to offer information concerned according to invention given in claims 1 and 6 as explained above, the advertising information relevant to the displayed area will be displayed automatically. Therefore, a user can offer the advertisement relevant to an interested area, and it can be expected that a propaganda effect will increase.
[0056] According to invention according to claim 2, the data storage configuration in a database is simplified and access is quickened.
[0057] According to invention according to claim 3, suitable advertising information can be offered according to the size of the area which the user chose.
[0058] According to invention given in claims 4 and 7, a user can see the advertising information relevant to the map information and coincidence which were searched on the same screen.
[0059] According to invention according to claim 5, an effective advertisement advertisement can be performed for every every place region.

[Translation done.]

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] However, it is unrelated to the map information on which the user displayed the contents of banner advertising by retrieval of arbitration in this case. Therefore, unless a user shows interest to the advertisement, clicks an advertising display and displays the homepage of the banner advertising positively himself, an advertisement effect of advertising is seldom expectable. That is, if it has the map information or the area where the banner advertising was displayed, and relation when displaying banner advertising on a display screen including map information, the value of seeing the advertisement also for a user will increase, but a user's interest will become low if unrelated.
[0007] This invention is made in view of the above point, and the technical problem tends to draw a user's interest with map information, and is to offer the system which enables presenting of the advertising information which can expect a high propaganda effect.

[Translation done.]

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MEANS

[Means for Solving the Problem] In order to solve the above-mentioned technical problem, invention according to claim 1 In the map system to offer information which provides a terminal with the map information accumulated in the map database through a network The advertising information database which memorizes correspondence with the positional information for specifying the area on geography, and the advertising information which has the area concerned and relation, A map information transmitting means to acquire the map information corresponding to the positional information specified by a user from said map database, and to transmit to said terminal, With reference to said advertising information database, the advertising information corresponding to said positional information is specified, and it constitutes so that it may have an advertising information transmitting means to transmit to said terminal.
[0009] According to the map system to offer information constituted as mentioned above, correspondence with the positional information for specifying the area on geography and the advertising information which has the area concerned and relation is memorized by the advertising information database. If a user specifies the positional information of a desired location from a terminal, a map information transmitting means will acquire the map information corresponding to the positional information specified by a user from said map database, and will transmit it to said terminal. Moreover, with reference to said advertising information database, an advertising information transmitting means specifies the advertising information corresponding to said positional information, and transmits it to said terminal. A terminal displays the map information and advertising information which were transmitted.
[0010] Therefore, if a user displays the map information on desired on a terminal using the map system to offer information concerned, the advertising information relevant to the displayed area will be displayed automatically. Therefore, a user can offer the advertisement relevant to an interested area, and it can be expected that a propaganda effect will increase.
[0011] In a map system to offer information according to claim 1, invention according to claim 2 constitutes said advertising information database so that it may have the local database which remembered correspondence relation with said positional information to be the local file which shows the area on said geography. Therefore, the data storage configuration in a database is simplified and access is quickened.
[0012] Said local file was classified into two or more hierarchies according to the size of the area where invention according to claim 3 corresponds in a map system to offer information according to claim 2, and said advertising information database has memorized the advertising information which corresponds for every area file belonging to said two or more hierarchies. Therefore, suitable advertising information can be offered according to the size of the area which the user chose.
[0013] In a map system to offer information according to claim 1 to 3, invention according to claim 4 constitutes said advertising information transmitting means so that the information which directs to display said advertising information on the same screen as said map information on said terminal may be transmitted to said terminal. Therefore, a user can see the advertising information relevant to the map

information and coincidence which were searched on the same screen.
[0014] In a map system to offer information according to claim 1 to 4, invention according to claim 5 constitutes the advertising information memorized by said advertising information database so that it may be either of the advertising information relevant to the advertising information relevant to the industry of said area and the store which exists in said area, and a facility. Therefore, an effective advertisement advertisement can be performed for every every place region.
[0015] In the approach of offering map information to a terminal through a network from a map system to offer information equipped with the advertising information database which memorizes the map database and advertising information that invention according to claim 6 accumulated map information The process which specifies the positional information of a desired location in said terminal, and the process which acquires the map information corresponding to the positional information specified by a user from said map database, and is transmitted to said terminal, With reference to said advertising information database, the advertising information which has relation is specified as the area corresponding to said positional information, and it constitutes so that it may have the process transmitted to said terminal, and the process which receives said map information and said advertising information, and is displayed on said terminal.
[0016] According to the approach constituted as mentioned above, if a user specifies the positional information of a desired location in a terminal, the map information corresponding to the positional information specified by a user will be acquired from said map database, and it will be transmitted to said terminal. Next, the advertising information which has the area and relation corresponding to said positional information with reference to said advertising information database is specified, and it is transmitted to said terminal. And a terminal receives and displays said map information and said advertising information.
[0017] Therefore, if a user displays the map information on desired on a terminal using the map system to offer information concerned, the advertising information relevant to the displayed area will be displayed automatically. Therefore, a user can offer the advertisement relevant to an interested area, and it can be expected that a propaganda effect will increase.
[0018] Said display process is constituted so that invention according to claim 7 may display said map information and said advertising information on the same screen in an approach according to claim 6. Therefore, it can follow and a user can see the advertising information relevant to the map information and coincidence which were searched on the same screen.
[0019]
[Embodiment of the Invention] In case this invention displays banner advertising with the map information acquired by map communications service, it is characterized by displaying automatically banner advertising relevant to the area of the map information currently then displayed. Since the area which the user specified himself and displayed in map communications service is an area in which the user is interested, if banner advertising which has relation is displayed on the area, a high propaganda effect is expectable. Hereafter, the gestalt of suitable operation of this invention is explained with reference to a drawing.
[0020] [1] The rough configuration of the map system to offer information applied to the operation gestalt of this invention at system configuration drawing 1 is shown. In drawing 1 , the map database center 10 and the map information offer site 20 are connected to the Internet 5. Furthermore, the user terminal 1 is connected to the Internet 5.
[0021] A user terminal 1 can receive service of WWW by using the application program called a WWW browser. In the example of drawing 1 , a user terminal 1 is connected to the map information offer site 20 using a WWW browser, and it becomes possible by perusing the homepage to receive offer service of map information.
[0022] The map database center 10 is a center for carrying out map communications service on the Internet, and is equipped with the map server 12 and the map database 14. The map database 14 contains the image data of the information on the positional information on a map (coordinate information), for example, the LAT, and LONG, and the map information corresponding to the positional information.

The image data of map information is constituted by two or more layered structures according to the scale. That is, like drawing in whole Japan, and drawing of all-prefectures level, the image data of two or more scales is prepared, and the local file name which is alike, respectively and specifies the image data is attached. Scale information and a local file are matched.

[0023] The map server 12 searches and acquires the image data (namely, local file) of map information which corresponds according to the assignment from a user terminal, directions, etc. from the map database 14, and transmits to a user terminal 1 through the Internet 5. Moreover, the map server 12 also performs retrieval of map information, and transmission according to the demand from the WWW server 22.

[0024] The map information offer site 20 is a WWW site. WWW is a broader-based information system on the Internet which offers multimedia information, such as text, image information, and speech information, using a hypertext. A WWW server is a server on the Internet linked by WWW, and calls a WWW site the site which gives its service by WWW. The map information offer site 20 is equipped with the WWW server 22, the landmark database 24, the banner database 26, and the local file database 28.

[0025] The landmark database 24 has memorized the data to which correspondences with those positional information are indicated to be a certain specific address, a name of the station, and landmarks (a facility, an amusement center, an amusement park, store, etc.). Therefore, the WWW server 22 can specify the address corresponding to it, a name of the station, and a landmark from specific positional information by accessing the landmark database 24. Moreover, the positional information which corresponds from the specific address, a name of the station, a landmark name, etc. is also acquirable conversely.

[0026] The local file database 28 has memorized correspondence with an every place region file and positional information (coordinate information). Here, an "area" is the geographical partition of a specific location, and the local file is classified and set to two or more layered structures from a large partition to a subsection. The example of the hierarchical partition of a local file is shown in drawing 3 . In addition, the example of drawing 3 shows only the partition of the local file relevant to the circumference of the Kamata, Ota-ku, Tokyo station. In drawing 3 , "level" shows at least that on the hierarchy of an every place region file. In this example, level 1 is the top hierarchy and is the biggest partition. It corresponds to a small partition as it is set to level 2, level 3, and level 4. Although not shown in the example of drawing 3 , the local file belonging to level 1 has Kansai, a northeast, Hokuriku, etc. other than Kanto. Similarly, the local file of all-prefectures extent, such as Tokyo, Saitama, and Chiba, is included in level 2, and the local file of a division and cities, towns and villages extent is included in level 3. Level 4 is the finest partition and the local file of a city name and name-of-the-station extent is included. The above-mentioned map image data is prepared corresponding to this every place region file. That is, the map image of Kanto and Kansai is prepared corresponding to the local file "Kanto" of level 1, and "Kansai", and the image data of Ota-ku and Chiyoda-ku is prepared corresponding to the local file "Ota-ku" of level 3, and "Chiyoda-ku."

[0027] About the circumference of the Kamata, Ota-ku, Tokyo station illustrated here, the local file which corresponds in all the hierarchies from level 1 to level 4 is defined, and correspondence with the local file and positional information is memorized in the local file database 28. In addition, the local file of level 4 which corresponds depending on positional information may not exist. That is, although map information detailed about a station and the circumference of shopping quarter is prepared, generally in farmland and a forest, detailed map information is not prepared. therefore, the local (the case -- the level 3) file and its map image data of the corresponding level 4 may not exist in the positional information which shows such a location

[0028] The positional information (coordinate information) corresponding to the above-mentioned every place region file is memorized by the local file database 28. That is, the information of whenever [east longitude OO], thru/or whenever [OO] is memorized whenever [positional information / corresponding to an every place region file name /, for example, north latitude OO,], thru/or whenever [OO]. Therefore, if positional information is determined, the local file (namely, map image data)

corresponding to the positional information can be specified by referring to the local file database 28. According to the example of drawing 3 R> 3, the local related file in each level can be specified by specifying the positional information near the Kamata station (north latitude, east longitude). In addition, as the approach of limitation of the positional information matched with an every place region file, a specific area can be specified by two or more polygonal LAT and LONG corresponding to top-most vertices, and this can be matched with a certain local file. Moreover, positional information can be specified by the approach of the area of radius OOkm centering on one certain point, and this can also be matched with a certain local file.

[0029] The banner database 26 has memorized correspondence with an above-mentioned local file and the banner-advertising information (advertising information) corresponding to it. The example of the information in the banner database 26 is shown in drawing 4 . In addition, the information which also limited the example of drawing 4 around the Kamata station is shown. As shown in drawing 4 , an every place region file, the level of the local file, and correspondence of the banner-advertising information determined to the local file are memorized by the banner database 26. That is, an every place region file is chosen by the user, and the banner database 26 shows the banner-advertising information which should be displayed on coincidence, when corresponding map image data is displayed on a user terminal. Advertisement D is displayed when it was the example of drawing 4 , for example, Advertisement B is displayed on coincidence when a user displays the map information on Ota-ku (it corresponds to a local file "Ota-ku") on a user terminal by map communications service, and the map information on Kamata (it corresponds to a local file "Kamata") is displayed on a user terminal 1.

[0030] Banner advertising prepared corresponding to an every place region file is banner advertising which has the area and relation. Specifically, banner advertising relevant to a store, a facility, etc. which exist in banner advertising relevant to the industry of the area etc. and its area etc. is mentioned. As banner advertising relevant to the industry of an every place region etc., the specialty article of the area, the product by the major industry of the area, service, etc. are included, for example, banner advertising of a rahmen store etc. is mentioned to banner advertising of an apple, and a local file "Sapporo" to a local file "Aomori." Moreover, as banner advertising relevant to the store and facility which exist in the area, banner advertising, such as a restaurant in the area, a department store, recreation facilities, and a sport facility, is mentioned.

[0031] In this operation gestalt, banner advertising matched to an every place region file presupposes that it is one, and the local file name memorized in the banner database 26 and banner advertising decide to correspond to 1 to 1. If the positional information which has a user by carrying out like this is specified and a local corresponding file is specified, banner advertising displayed with the map information on the local file will be determined as one. Therefore, processing by the WWW server 22 can be simplified.

[0032] However, two or more advertisements corresponding to an every place region file are prepared, and it changes according to a time zone, and can display. For example, the correspondence in a database can be determined that banner advertising of the department store is displayed and, as for the business-hours band of a certain department store, the time zone after the operating termination will display the advertisement of another restaurant to a certain local file. Moreover, according to a season, a day of the week, etc., banner advertising corresponding to one local file can also be changed similarly. The offer company of the map communications service concerned determines matching with the local file in the banner database 26, and banner advertising according to a request of an advertiser. Moreover, when two or more advertising displays are prepared all over the screen displayed on a user terminal in map communications service, two or more banner advertising can be matched to an every place region, and two or more banner advertising can also be displayed on coincidence.

[0033] [2] Explain map information offer actuation, next map information offer actuation with reference to drawing 1 thru/or 6. Drawing 2 is a flow chart which shows offer actuation of map information, and drawing 5 **** drawing 6 is the example of the map display screen in each phase. Hereafter, the user of a user terminal 1 connects with a map information offer site, and it explains taking the case of the case where map information is acquired.

[0034] First, a user uses the WWW browser of a terminal 1 and specifies URL of a map information offer site (step S2). URL is address information which specifies the specific link place on WWW. This connects a terminal 1 to the WWW server 22 of the map information offer site 20 through the Internet 5.

[0035] Answering this, the WWW server 22 sends the HTML (Hypertext Markup Language) text of the homepage of a map information offer site to a terminal 1. A HTML text is the text file described in the language called HTML, and the information on preservation places, such as associated image information and speech information, can be included. The WWW browser of a terminal 1 receives this HTML text, and displays it on a terminal 1 (step S4).

[0036] The example of the initial screen of the homepage concerned displayed on drawing 5 in this way is shown. In drawing 5 , there is a map display 30 in the center of a display screen, and map image data is displayed there. The banner-advertising display 40 is on the map display 30. In addition, in an initial screen, since assignment of the map information by the user is not performed, suppose that messages other than banner advertising by which a specific area and correlation are not made, or an advertisement etc. are displayed in the banner-advertising display 40.

[0037] The scale specification part 32 is immediately under the map display 30, and this shows the scale (scale) of the map currently displayed in the map display 30. Each carbon button in the scale specification part 32 (this example 11 steps) supports a different scale. In the example of drawing 5 , the display of a map is made by the largest (close to a left-hand side Japanese map mark) scale. If the conservative (close to "street") carbon button in the scale specification part 32 is clicked to expand the displayed map image, the small map image of a scale will be displayed.

[0038] The scrolling section 34 is displayed on the left-hand side of the scale specification part 32. The scrolling section 34 is used to display the periphery of the map by which it is indicated by current, and the arrow head turned in the eight directions centering on the current display position is displayed. For example, a user's click of the upward arrow head in the scrolling section 34 displays the map of the periphery of the location by which it is indicated by current located immediately north. That is, presenting of map information is changed so that the clicked location may take the lead in a display image.

[0039] On the bottom of the scale specification part 32, the input column 36 for specifying or inputting a location searching is displayed. The user as whom the carbon button of "an address list", "a station list", and "a landmark list" is displayed, and the candidate list of the address, a name of the station, and landmark names is displayed by clicking these can display the map image of the location on the left-hand side of the input column 36 by choosing a desired candidate out of them. Moreover, the input box of the address, a name of the station, and a landmark name is displayed on the right-hand side of the input column 36, and a user can do the direct input of the desired address, the name of the station, etc. using a keyboard. For example, if a user inputs the "Kamata station" in the name-of-the-station input box of the input column 36, as shown in drawing 6 R> 6, the map image centering on the Kamata station will be displayed in the map display 30. In addition, various special function carbon buttons are displayed on the right-hand side of the input column 36.

[0040] Where the homepage of a map information offer site is displayed like drawing 5 , a user specifies the destination which you want to display and inputs. This assignment may be performed by specifying a candidate from the list on the left-hand side of the input column 36, and may be performed in an input box by carrying out direct typing of a name of the station, the address, etc. In this way, the specified destination information is sent to the WWW server 22 through the Internet 5 from a terminal 1 (step S6). The scale information by which can come, simultaneously current selection is made is also sent to the WWW server 22.

[0041] The WWW server 22 acquires the positional information (coordinate information) corresponding to the destination concerned for this information with reference to reception and the landmark database 24. Moreover, based on the acquired positional information, the local file corresponding to the positional information concerned is specified with reference to the local file database 28. Next, with reference to the banner database 26, banner advertising corresponding to the local file concerned is specified.

[0042] If a user inputs the "Kamata station" into the input column 36 and retrieves the map information around the Kamata station now, the WWW server 22 acquires the positional information of the Kamata station, and specifies a local file "Kamata" with reference to the local file database 28 based on this. Here, when current positional information belongs to the local file of two or more level in the local file database 28, the advertisement corresponding to the lowest (the number of level is large) area of level is determined as banner advertising which should be displayed. In this example, it will correspond to all the local files of "Kanto", "Tokyo", "Ota-ku", and "Kamata" which the specified positional information is the thing of the Kamata station, and are shown in drawing 3 . In this case, the WWW server 22 determines the lowest local file "Kamata" of level as a current area. When the specified positional information corresponds to two or more local files, banner advertising prepared about the smallest partition will have priority, and will be displayed by this processing. When a user specifies the Kamata station and retrieves map information, as banner information displayed on coincidence, the advertisement relevant to the Kamata station is more desirable than the advertisement about whole Ota-ku or whole Tokyo. Therefore, when positional information belongs to two or more areas, it constitutes so that the advertising information on the lowest area of level may be displayed preferentially.
[0043] On the other hand, although the positional information corresponds to the every place region file of "Kanto", "Tokyo", and "Ota-ku" when a user specifies other locations in Ota-ku (for example, residential street etc.), for example, a local corresponding file may not exist in level 4. In such a case, the WWW server 22 determines the advertisement C which specifies the local file corresponding to order from level low as mentioned above and which corresponds for the WWW server 22 to specify a local file "Ota-ku" with reference to the local file database 28 therefore, and refer to the banner database 26 further.
[0044] Moreover, when a user specifies it as "Ota-ku", "Tokyo", etc. using the input column, the local file of level which corresponds, respectively will be specified and the advertisement C related with it and Advertisement B will be displayed.
[0045] Now, if it returns to the example of the Kamata station, the WWW server 22 will determine the advertisement D corresponding to a local file "Kamata" with reference to the banner database 26 next. And the WWW server 22 creates a HTML text including the banner-advertising assignment information which shows the above-mentioned positional information and Advertisement D, and transmits to a terminal 1 (step S8). The banner-advertising assignment information which should be carried out call appearance from Server Name (namely, map server 12) which the terminal 1 which received it further should access, the local file name chosen according to the scale by which current selection is made, the sentence which should be displayed on a terminal 1, and the banner database 26 is included in this HTML text.
[0046] The WWW browser of a terminal 1 displays the sentence contained in reception and it in this HTML text. Moreover, information, such as a local file name, positional information, size information, and scale information, is sent to the map server 12 described in the HTML text concerned (step S10). The map server 12 accesses the map database 14, acquires the image data corresponding to the range determined using size information focusing on positional information among the image data of the local file specified by scale information and positional information, and transmits to a terminal 1 by making this into map image data (GIF data).
[0047] Moreover, the WWW browser of a terminal 1 accesses the banner database 26 at coincidence, acquires the banner-advertising image data corresponding to the banner-advertising assignment information described in the HTML text, and sends it to a user terminal (step S12).
[0048] A terminal 1 displays the map image data transmitted from the map server 12 on the display part specified in the HTML text to which it was previously transmitted from the WWW server 22. Moreover, the banner-advertising image data transmitted to coincidence from the banner database 26 is displayed in the banner-advertising display 40, as shown in drawing 6 (step S14). In this way, the map image data of the destination specified by a user is displayed in the map display 30 of a terminal 1, and banner advertising relevant to the area is displayed in the banner-advertising display 40.
[0049] In addition, when the destination is changed by the re-assignment to a user's input column 36,

and reinput, based on the positional information after changing step S6 thru/or processing of S14 etc., renewal of a map and a banner-advertising display is performed repeatedly.

[0050] Moreover, where a map image is displayed, also when there are modification of a scale, modification of a display position, etc., processing transmits return, the positional information after modification, scale information, etc. to step S6 to the WWW server 22. Henceforth, the WWW server 22, the map server 12, and a terminal 1 perform same processing based on the information after modification, and make a change of a map and a banner-advertising display.

[0051] For example, when a user operates the scale specification part 32 and scale information is changed, the range of the map image data which the map file which the map server 12 should access is changed, or is transmitted to a terminal 1 among the same map files is changed. On the other hand, if a user clicks the location which is interested on the map displayed in the map display 30, the positional information of the location will be transmitted and the map server 12 will transmit the map image data centering on the location to a terminal 1. Consequently, the map in the map display 30 is changed into a display centering on the location which the user clicked.

[0052] Moreover, when positional information is changed in this way, the WWW server 22 judges whether modification of the positional information is accompanied by modification of a local file with reference to the local file database 28. When accompanied by modification of a local file, with reference to the banner database 26, the banner-advertising assignment information corresponding to the local file after modification is acquired. The rest transmits the banner-advertising assignment information after modification to a terminal 1 according to steps S12 and S14, acquires banner-advertising image data from the banner database 26, and displays it in the banner-advertising display 40.

[0053] In addition, in the above-mentioned explanation, although the map server 12 specified the map file directly by the file name, the map file of the map server 12 may be made to be built according to original administrative information. In that case, it replaces with specifying a map file name directly, and a map file is accessed using CGI (Common Gateway Interface) which achieves an interface with the program which moves on a WWW server and a server. For example, at step S10, the CGI name for a map display is sent to the map server 12.

[0054] As explained above, according to this invention, in addition to the map information on the location which the user specified himself and searched, in map communications service, the banner-advertising information relevant to the location is displayed. Therefore, a user can acquire automatically the advertising information which is related to a location with the present interest. Moreover, since an advertisement can be offered to the user who is more interested also as an advertiser, it is expectable that an advertisement effect of advertising increases.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the block section which shows the rough configuration of the electronic mail system concerning the operation gestalt of this invention.
[Drawing 2] It is drawing showing the example of stored data in a local file.
[Drawing 3] It is drawing showing the example of stored data in a banner database.
[Drawing 4] It is the flow chart which shows offer actuation of map information.
[Drawing 5] It is drawing showing the example of the display screen of a map information offer site.
[Drawing 6] It is drawing showing other examples of the display screen of a map information offer site.
[Description of Notations]
1 -- Terminal
5 -- Internet
10 -- Map database center
12 -- Map server
14 -- Map database
20 -- Map information offer site
22 -- WWW server
24 -- Landmark database
26 -- Banner database
28 -- Local file database
30 -- Map display
32 -- Scale specification part
34 -- Scrolling section
36 -- The input column
40 -- Banner-advertising display

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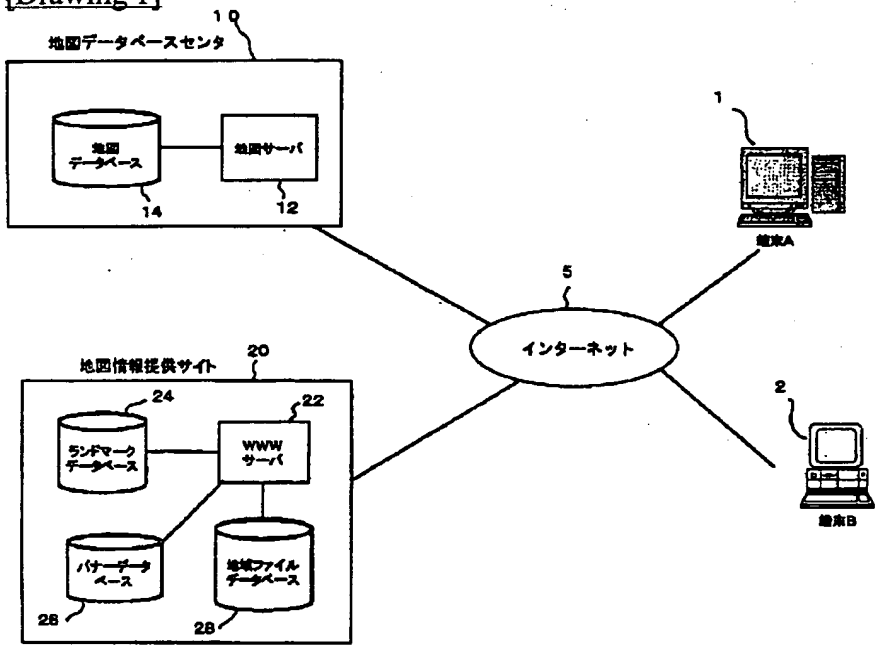
DRAWINGS

[Drawing 1]



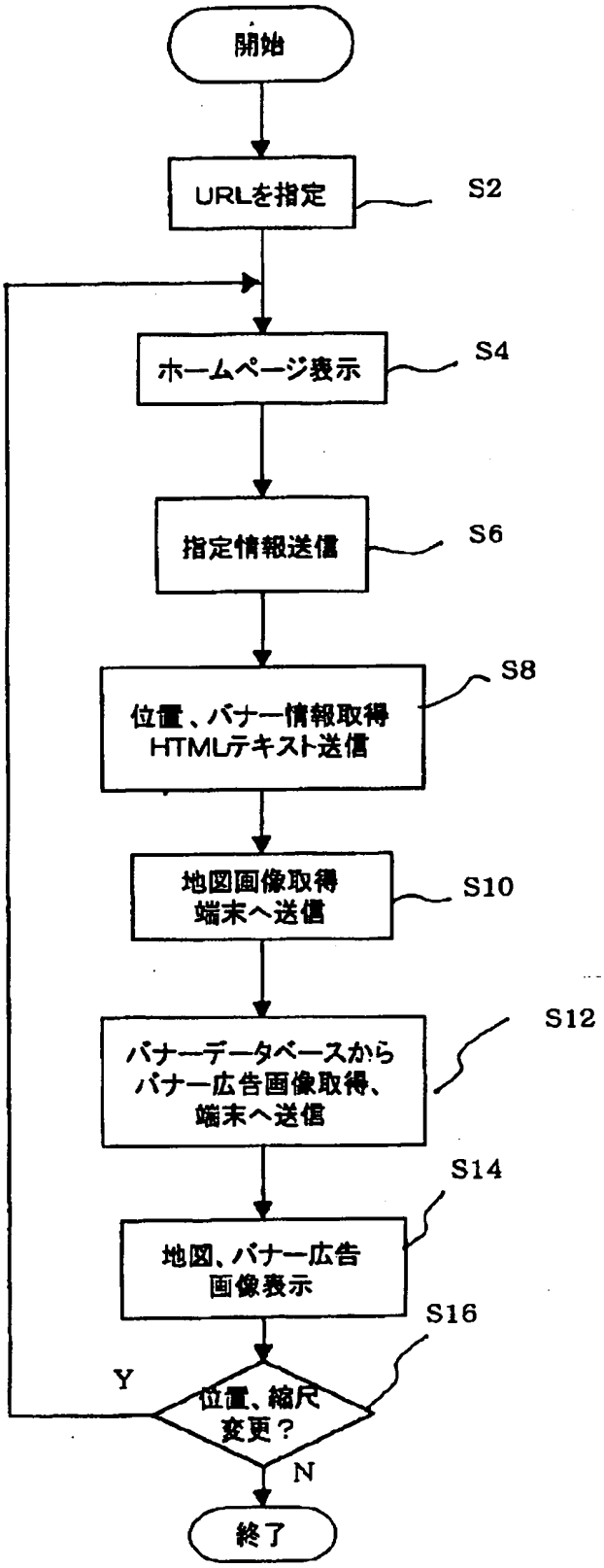
[Drawing 3]

レベル	地域ファイル	位置情報
1	関東	北緯○○－○○度、東経○○－○○度
2	東京	北緯○○－○○度、東経○○－○○度
3	大田区	北緯○○－○○度、東経○○－○○度
4	蒲田	北緯○○度、東経○○度から半径△ｋｍ以内

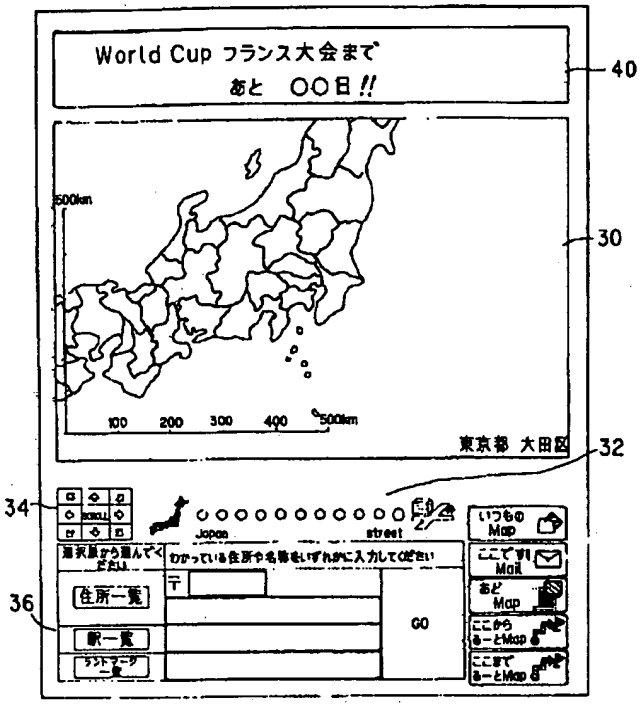
[Drawing 4]

レベル	地域ファイル	バナー広告
1	関東	広告A
2	東京	広告B
3	大田区	広告C
4	蒲田	広告D

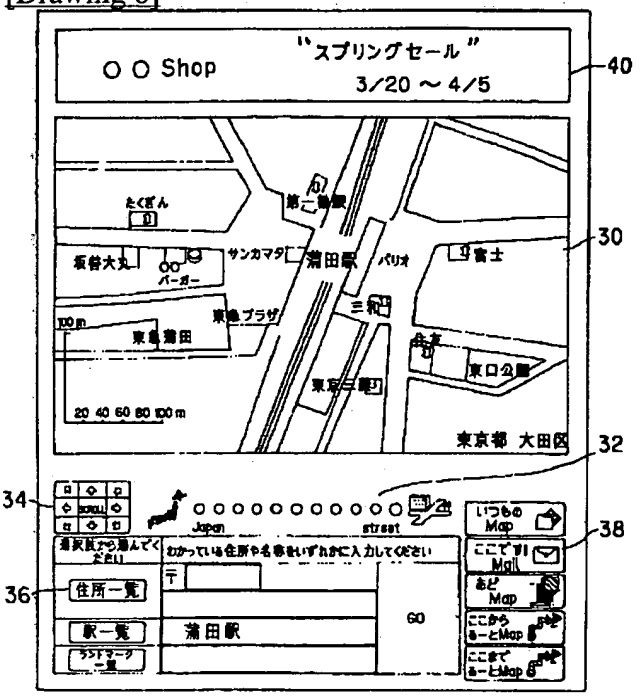
[Drawing 2]


開始
URLを指定
S2
ホームページ表示
S4
指定情報送信
S6
位置、バナー情報取得
HTMLテキスト送信
S8
地図画像取得
端末へ送信
S10
バナーデータベースから
バナー広告画像取得、
端末へ送信
S12
地図、バナー広告
画像表示
S14
位置、縮尺
変更？
S16
Y
N
終了

[Drawing 5]



[Drawing 6]



[Translation done.]

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